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ABSTRACT

The Pennsylvania State University served as the Pennsylvania Coordinator of Occupational Competency Assessment (OCA). It managed the Pennsylvania OCA Program, which provides the secondary public schools of the state with competent vocational instructors as a component of teacher preparation at Temple University, Indiana University of Pennsylvania, the University of Pittsburgh, and Pennsylvania State University. The coordination of the overall program was accomplished through meetings, personal visits, workshops, conferences, and frequent contact with the test center coordinators at each institution. Other activities included management of the test bank of materials obtained from the National Occupational Competency Testing Institute, computation of norm data from test results, and coordination of OCA activity with the Bureau of Teacher Certification. Numerous guides for test center use in counseling candidates were prepared and distributed, and studies were conducted for program improvement. (An appendix contains the Occupational Competency Performance Examiner Handbook.) (YLB)

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THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF VOCATIONAL EDUCATION

FINAL REPORT

PENNSYLVANIA OCCUPATIONAL COMPETENCY ASSESSMENT PROGRAM - 1983

RICHARD A. WALTER

U.S. DEPARTMENT OF EDUCATION
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Final Report

The Pennsylvania State University's Responsibilities for the Occupational Competency Assessment Program Coordination, Research and Development, and Management

86-4010

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The Pennsylvania State University
University Park, Pa.

January 1984

Pennsylvania Department of Education
Bureau of Vocational Education
Vocational Program Support Services Section

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Acknowledgements

The interest and cooperation of many persons was essential to the activities detailed in this report. The test center coordinators; Dr. Ray Lolla at Temple University; Dr. Frederick Welch at The Pennsylvania State University; Dr. Jerry Davidson at the University of Pittsburgh; and Mr. Roger Keith at Indiana University of Pennsylvania; provided assistance and personal involvement in addition to their test center activities. Mr. John Brandt, Supervisor of Trade and Industrial Education, Bureau of Vocational Education, provided constant guidance and counsel. Bureau of Vocational Education program supervisors, secretaries, and field staff all were helpful and supportive in the completion of this project.

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Without the support of these and many other persons, the conduct of the project activities would have been impossible. Sincere thanks is expressed to all.

Abstract

86-4010: The Pennsylvania State University's Responsibilities For The Occupational Competency Assessment Program Coordination, Research and Development, and Management.

Elizabeth M. Ray — $28,601

Richard A. Walter — 7/1/83 to 1/1/84

The Pennsylvania State University

University Park, PA 16802

This project supported the management of the Pennsylvania Occupational Competency Assessment Program. The coordination activities involved the four university test centers, the Bureau of Vocational Education, the Bureau of Teacher Certification, and the National Occupational Competency Testing Institute.

Objectives:

1. To serve as the Pennsylvania Coordinator of Occupational Competency Assessment.
2. To maintain a master file of Pennsylvania developed testing materials.
3. To provide reviews and changes to examinations to meet Pennsylvania testing requirements.
4. To identify occupational competency examinations requiring development.
5. To revise, print, and disseminate publications and reports necessary to support the OCA program.
6. To conduct continuous study of the OCA program to identify changing needs and to recommend areas for improvement.

Background

Successful completion of occupational competency assessment is mandated by the Pennsylvania Board of Education as a requirement for vocational teacher certification in the trade and industrial program and for certain occupational categories in the other vocational program areas. This requirement has evolved from the philosophy that persons who enter the vocational classroom as a teacher must be competent in the occupation they desire to teach. The resulting program or assessment appears to be successful, since a consistent pattern of qualified candidates has emerged. Thus the Occupational Competency Assessment Program provides the secondary public schools of the state with competent vocational instructors as a component of teacher preparation at Temple University, Indiana University of Pennsylvania, the University of Pittsburgh, and The Pennsylvania State University. This requires continuing statewide coordination to insure that Pennsylvania continues developing and maintaining a model program, and meeting the functional and legal needs of vocational teacher education.

Methods

Coordinate OCA Program

The coordination of the overall program was accomplished through meetings, personal visits, workshops, conferences, and frequent contact with the test center coordinators at each institution. Meetings of the Occupational Competency Assessment Consortium were conducted to review program and test center activity and to address issues presented by the members. Representatives from the four Universities, the Bureau of

Vocational Education, the Bureau of Teacher Certification, and the Vocational Administrators of Pennsylvania participated.

The trend toward greater militancy on the part of unsuccessful candidates has continued. This phenomenon generally involves individuals with marginal qualifications, who are unwilling to accept that their limited experience may account for this unsuccessful demonstration of competency. The resolution of these appeals requires the investment of large amounts of time and energy by the test center coordinators and the state coordinator.

Test Bank Management

Test materials, with a few exceptions, are obtained from NOCTI. Each test center prepares an order for the tests needed for each testing period and receives the materials directly from NOCTI. The staff at NOCTI has been receptive to special orders, and when necessary have hand scored exams and reported the results by phone. This enabled the test centers to assist schools that were awaiting the results to employ prospective teachers.

Norm Data

Development of statistical data for the evaluation of test results became a NOCTI responsibility when they acquired the Pennsylvania test bank. Initially this did not change the process of statistical update, since NOCTI had to use Pennsylvania data for norms. However, the accumulation of inflated test scores from several states produced an unprecedented failure rate in Pennsylvania. Therefore, the update process had to be ammended and Pennsylvania statistics have continued to be computed. As the norm base from which NOCTI computes the cut-off

scores expand, it is expected that the statistics will improve. The comparison of the two sets of data for their probable impact on Pennsylvania candidates has continued.

Bureau of Certification Coordination

The coordination of OCA activity with the Bureau of Teacher Certification continued to be an effective process in achieving the goals established. Many problems, highly individualistic, were discussed throughout the year with resolution usually achieved in a short time. The participation of Bureau of Teacher Certification representatives in the OCA Consortium has contributed to the effective solution of these problems.

Examination Development

The Pennsylvania Occupational Competency Assessment Program is under constant review to identify trends and problem areas; to develop improved techniques and testing instruments; and to determine and implement managements improvements.

Conclusions and Recommendations

The Occupational Competency Evaluation Program serves the important function of providing the public schools with occupationally competent instructors and is a vital part of vocational teacher education. Though in some aspects subjective, the testing program remain the most objective of all the processes through which prospective teachers are evaluated.

Involvement with the National Occupational Competency Testing Institute (NOCTI) has resulted in a continuation of test improvement at

the national level. The availability of quality testing instruments through the centralized printing and distribution by NOCTI has improved the service to candidates and strengthened the position of the Bureau of Vocational Education in dealing with challenges to the testing process. Contact between NOCTI, Pennsylvania, and other states involved in test updating has been steadily expanding and improving, resulting in better final products and an overall closer working relationship.

Numerous guides for test center use in counseling candidates were prepared and distributed, as well as conducting studies for program improvement. The difficulties in conducting oral examinations in several areas have also been reduced by the development of performance components, permitting the evaluations to be more objective. Recognition of the leadership role of Pennsylvania in occupational competency assessment has continued through national meetings and by providing information and advice to states interested in improving or initiating OCA.

Considerable effort and funding has produced an effective program of occupational competency assessment for Pennsylvania. A continued effort is needed, not only to maintain, but to improve the program, thereby insuring that the secondary vocational schools of the Commonwealth will continue to meet the needs of society with competent instructors.

APPENDIX A

Revised Examiner Instructions

CHECK ON TEST PACKAGE CONTENT

EACH EXAMINER IS RESPONSIBLE FOR STUDYING ALL EXAMINATION MATERIAL BEFORE THE EXAMINATION. ANYTHING THAT IS MISSING OR IN QUESTION SHOULD BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE TEST CENTER COORDINATOR. IT IS EXPECTED THAT YOU WILL EXAMINE THIS MATERIAL AT LEAST ONE WEEK PRIOR TO THE SCHEDULED DATE FOR THE EXAMINATION. IN THE EVENT THAT ANYTHING IS MISSING, IT THEN CAN BE CORRECTED.

THIS EXAMINATION IS TO BE TREATED IN CONFIDENCE. CONTENTS OF THE EXAMINATION OR THE RESULTS ATTAINED BY ANY EXAMINEE ARE NOT TO BE DISCUSSED WITH ANY PERSON(S) OTHER THAN THE TEST CENTER COORDINATOR OR A DESIGNATED REPRESENTATIVE.

PURPOSES OF THE EXAMINATION

The purpose of this examination is to determine, insofar as it is possible, whether the applicant is competent in the occupation to be taught.

Occupational Competency Examinations are not intended to be a measure of aptitude for teaching but rather a measure of the applicant's technical knowledge and manipulative skills related to the occupation. Estimates of the probable success of the candidate as a teacher will be determined by means other than use of this Occupational Competency Examination.

NOTIFICATION OF CANDIDATES

Candidates will be notified of the time and place of the examination by the test center to which they apply. The name of the examiner to whom they should report will be made known to each examinee in a letter of notification. The notification of the examination date and the place for reporting will include information as to personal tools or other materials that the candidate may bring for use in the examination. These items will vary from examination to examination. In some cases, the candidate may be permitted use of a calculator or may be permitted to use personal tools.

IDENTIFICATION OF CANDIDATES

Examiners will be furnished with a list of names of persons who are to be tested. Only those whose names appear on the list will be admitted for testing. Candidates will identify themselves through their letter of notification and driver's license. If not a licensed driver, another form of legal documentation with photograph will be accepted. In all cases, candidates are encouraged to report early to permit time to become acquainted with facilities and equipment. The examiner should anticipate that candidates will report 15-30 minutes early and should adjust the schedule accordingly. The examiner has the option of permitting a candidate to begin the test if the candidate is 15 or more minutes late. If an individual does report late and is admitted to the testing, the length of time allowed for the test will be that indicated by reducing the time allotted because of the late start. Whether or not the candidate is admitted to testing, the examiner should have the candidate complete the late arrival form. (Appendix A)

LENGTH OF EXAMINATION

As a guide to the examiner for processing work completed in the performance examination, the estimated length of time will be stated on each examination. The length of the test may vary depending on the minimum amount of testing necessary to measure a candidate's skills and knowledge.

The performance examinations are so constructed that a competent craftsperson should be able to complete the required work in the time specified. The time stated for the examination is standardized and there should be no requirement for any candidate to be allotted additional time other than that where a candidate might have been late in reporting or where ar equipment malfunction reduced time available to the candidate.

SUPPLIES FOR TESTING

Prior to the examination, the examiner will be furnished with a list of materials and supplies needed to conduct the test. In some cases, there may be errors or omissions, therefore, it is the examiner's responsibility to review the test in its entirety to determine that all supplies, equipment, test equipment, and materials are readily available, the examiner may be required to purchase these on a reimbursable basis. Requests for reimbursement of test supplies should be made prior to the testing and directed to the test center coordinator, and should be displayed on institutional letterhead or on an invoice from the supplier.

GENERAL

The performance examiner is responsible for seeing that everything is set up and ready to go, for starting the test on time, and for maintaining the prescribed time limit.

The examiner's approach to the examinee must be purely professional. One must not allow personal concern for an examinee to sway one's judgment of good testing and evaluating procedures. One should not make any comment to any examinee concerning how well he/she or any other examinee is doing or has done, on any part of the examination, or on the examination as a whole.

Except under unusually extreme circumstances, the examiner will complete the total evaluation of each performance examination and forward it with all other testing materials to the program coordinator not later than five days following the testing date.

WHAT TO DO PRIOR TO THE EXAMINATION

1. Read all specific directions relative to the test.

2. Check and test all equipment and tools needed for the test to make sure that everything is in good working order.

3. Make sure that tools, machines, equipment and working conditions are as identical as possible for all persons who are taking the examination.

4. Prepare well in advance of the time of the examination, all partly completed items of material which are to be used as test pieces. Check to make sure that the test job is completed to the point where the examinee takes over.

5. Place all tools, materials and supplies required for the test in a convenient location. The candidate should not be required to spend time in securing stock and other preliminary work. Tools other than those that may be needed for each particular job should be available so that the candidates may be permitted a selection or choice. In some cases a determination of competence can be partially based on the selection of tools for a particular job.

6. Set up and define work stations for each examinee; have everything ready for the examination.

7. Make sure that a complete set of job assignments, necessary drawings, and other written directions related to the test, are placed in a large envelope with the candidate's name and number.

8. Each candidate should be identified by a number. This number can be prepared on a paste-on-tag that can be pasted to the candidate's clothing to insure positive identification. This will preclude allegations of misidentification if more than one examinee is being tested.

WHAT TO DO DURING THE EXAMINATION

1. Before actual work begins, permit the examinee to become acquainted with the surroundings. Point out the location of such facilities as electrical outlets, service facilities, and other physical details. If the equipment is strange to the candidate, allow the candidate a few minutes to become acquainted with the location of knobs, switches, and other required adjusting devices. In the case of test equipment such as used in the electrical and the electronic occupation, the candidates should be permitted to examine them to insure familiarity with that particular equipment. This is important!

2. Test monitoring procedures are to be explained to the candidate prior to the start of testing. Explicit directions for the candidate to follow when working on each job are found on the individual job sheets.

3. Note the time each job is started and finished by each candidate. The candidate is required to record this time also on the individual job sheet.

4. Observe the candidate at work. CHECK THE WORK QUIETLY AND INCONSPICUOUSLY. Keep a record for your own purpose as the examination progresses. In many cases the examiner is provided with examiner job sheets which explain the requirements for the candidates to work on each specific job. If this is provided you may make a record of

this observation, on each job sheet. If the individual job sheets are not required for the examiner, you should have some other method of recording this information.

5. Observe each candidate for approximately the same amount of time. You should not, under any circumstances, show favoritism or appear to show favoritism to any candidate.

6. Check and rate each step of the job as it is completed by each candidate.

7. Tag or stamp each completed job with the candidate's number. This is particularly important in order that the candidate who actually performed the work is given credit for that job.

8. Maintain an impartial attitude at all times. It eliminates criticism and aids in reducing tension, which quite naturally develops during an examination. If handbooks, reference tables, or other items are to be provided by the examiner, be certain that these are readily available.

9. Each job has been given an allotted time. A candidate may not be permitted to go beyond the time allotted, except for equipment malfunctions not the fault of the candidate, at the direction of the examiner. The examiner must analyze any equipment malfunction and adjust the time allowed if appropriate. In the event a candidate completes a job prior to the allotted time, the succeeding job may be started earlier, but that time saved may not be applied to the next or any succeeding job.

EXAMINATION PRACTICES

1. Except in unusual circumstances, only one examinee should be permitted to leave the room at any time.

2. Testing material and/or completed jobs are not to be removed from the test area during or after the examination.

3. The meaning or intent of a job assignment is not to be interpreted by the examiner for the candidate. If the candidate is not certain of the meaning or intent, suggest that they proceed according to their understanding. Do not attempt to adjust the wording or phrasing of any one of the job instructions.

4. Grading sheets are not to be marked in any candidate's presence.

5. Refrain from giving any information to a candidate concerning progress or the progress of any other candidate or the probable results of the examination.

6. Discussion of a candidate's trade experience, education, personal problems, or any other such information is to be avoided.

7. Additional persons or observers are not permitted in the examining area to observe candidate performance during testing. Persons permitted to be present are (1) the examiner(s) and candidate(s); (2) the test site coordinator, the test center coordinator and the state coordinator; and/or (3) state officials and/or officially sanctioned persons having prior official state approval. Exceptions to these rules are not permitted or condoned.

AT THE CLOSE OF THE EXAMINATION

1. Stop work at the expiration of the maximum allotted time.

2. Collect all examination forms and work sheets.

3. Identify all job pieces with the candidate's number. Retain all finished work until exam results are ready to be mailed to the test center coordinator. After the test materials are returned, the finished work should be destroyed, disgarded, shredded, etc.

SCORING PERFORMANCE EXAMINATION

1. Inspect and rate all completed work immediately after candidates have departed from the examination site.

2. Use only the performance rating summary sheet proviced. This is prepared for machine scoring, so it is important that you use a number two pencil to darken the circle completely for the performance demonstrated by the candidate. The rating summary sheet includes those elements considered important to the job. You should evaluate the candidates' performance based on the scale printed on the sheet; i.e., expert, above average, average, below average, inept. Do not attempt to assign a numerical score to the elements, as this will be done through a machine readout when the evaluation summary is processed at NOCTI. Use of the descriptors shown will permit concentration on the candidates' performance in relation to trade and industrial practice, rather than concern for a score to be attained.

3. If the candidate has demonstrated competency in some part(s) of the job and you indicate that it is not necessary to reassemble or complete every step of the job to show completed work, you must give credit for completed work. An example might be installing machine screws, where work may cease after a small number have been installed and competency is demonstrated. It is not necessary to install additional screws just because they are available.

4. Enter comments which have a bearing on the competence of the candidate on the sheet in the appropriate place. This is particularly important where the performance may be marginal.

5. Review the safety rating sheet.

6. Sign the rating sheet in the place provided for the examiner's signature.

7. Return all scoring sheets, papers, prints and other material to the program administrator no later than five days following the date of the examination.

EXAMINER'S REPORT

1. The "Examiner's Report, Performance Examination" must be submitted to the program administrator for each candidate who registers to take the examination.

2. This form must be filled out in its entirety and signed by the examiner as it is designed to provide the central examining agency with a final endorsement of the individual's occupational competency.

3. The narrative portion of the report should be specific and concise in the description of the candidate's strengths and weaknesses.

4. The examiner, using best judgment, will indicate satisfactory or unsatisfactory.

CANDIDATE'S WITHDRAWAL

1. If the candidate elects to withdraw from the examination at any time prior to or during the examination, insure that the candidate signs the proper section of the examiner's report.

2. Candidate withdrawal will require an evaluation of the individual jobs that have been completed by the examinee.

3. The examiner is expected to provide a subjective narrative of performance if a part of the examination has been completed prior to withdrawal. This will be included in the examiner's report and is to be signed by the examiner.

PERFORMANCE EXAMINATION LATE ARRIVAL FORM

My signature below indicates my understanding that I arrived after the scheduled starting time of my performance examination.

Date of Testing: _____

Scheduled Starting Time: _____

Candidate's Arrival Time: _____

Reason

_____

Candidate's Signature

_____

Examiner's Signature

EXAMINER'S REPORT - PERFORMANCE EXAMINATION

Name of Candidate _____ Occupation _____

Subjective Evaluation of Candidate: (check appropriate column)

	excellent	satisfactory	unsatisfactory
1. Manipulative		X	
2. Speed			X
3. Technique			X
4. Emotional reactions			X
5. Quality of work			X
6. Safety			X

From your observation of the candidate, what do you believe are his/her areas of weakness?

Candidate worked too slowly to complete the jobs during the allotted time. Candidate performed the work using unacceptable techniques resulting in safety violations. Candidate was extremely nervous, which interferred with job performance. Candidate failed to finish sand Jobs 3 and 4. Holes drilled in Job #1 improperly placed and not countersunk. Failed to cut stock accurately for Job #5 resulting in very poor finished product. Did not perform Job #6 because of inability to correctly interpret blueprint and complete layout.

MUST CORRELATE →

Based on your personal observation of candidate performance and performance test results, would you recommend _____ (satisfactory) or X (unsatisfactory).

Date: _____ Examiner's Signature _____

Candidate's Statement of Withdrawal

I hereby indicate my voluntary withdrawal from the above examination.

_____ _____ _____

Candidate's Signature Date Hour